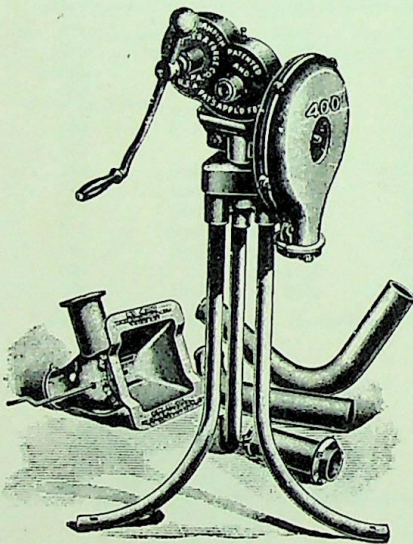


Est. 1875

# Champion



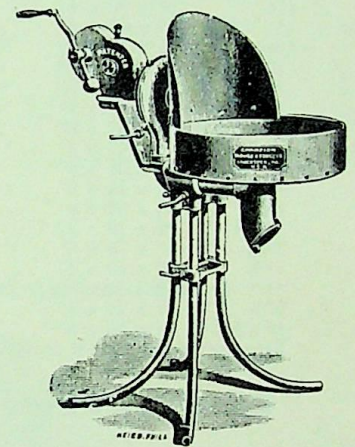
The Famous 400 Blower

## THE 400 CHAMPION

Blacksmith Blower with its "WHIRL-WIND" Tuyere Iron has NO EQUAL OR COMPARISON. It stands unquestionably in a class STRICTLY ITS OWN. Crank turns either way to make the blast. Fan wing revolves 46 times to every turn of crank.

With over a million users who are the 400's staunchest supporters, our greatest desire is: ASK WHAT THE OWNERS SAY. Particularly ask those that have daily used the 400 BLOWER 25 YEARS. The only Blower on earth as good after 25 years use as when new.

No. 400 Champion Patented "Whirl-wind" Blast Anti-Clinker Heavy Nest Tuyere Iron, goes with the 400 Blower, WITHOUT EXTRA COST.



No. 401 Forge

No. 401 Champion Steel Rivet Forge is used by the great majority of railroads, bridge-builders, boiler and structural iron workers of the world. We guarantee to increase the work over and above any other make of rivet forge 25 per cent. Quickly taken apart and assembled. Produces blast to weld 3½- to 4-inch iron in ten minutes.

No.	Bearings	Fan	Tuyere Iron	Weight	No.	Hearth	Fan	Bearings	Height	Weight
400	Full Ball Bearing (Illustrated)	12"	400 Anti Clinker	160	401	18"	9"	Full Ball Bearing (Illustrated)	30"	135
420	Full Ball Bearing	14"	400 Anti Clinker	170	401½	22"	9"	Full Ball Bearing	30"	145
421	Full Ball Bearing	16"	400 Anti Clinker	175	401¾	24"	12"	Full Ball Bearing	30"	155
70	Ball Bearing High Speed Shaft	12"	400B Heavy Ball	170	78	18"	10"	Ball Bearing High Speed Shaft	30"	110
70L	Ball Bearing High Speed Shaft	12"	400B Heavy Ball	135	78A	22"	10"	Ball Bearing High Speed Shaft	30"	120
40	Ball Bearing High Speed Shaft	12"	Patent Adjustable	125	78B	24"	10"	Ball Bearing High Speed Shaft	30"	125
40L	Ball Bearing High Speed Shaft	12"	Patent Adjustable	100	48	18"	10"	Ball Bearing High Speed Shaft	30"	130
140L	Bushed	10"	Ball	60	48A	22"	10"	Ball Bearing High Speed Shaft	30"	135
					48B	24"	10"	Ball Bearing High Speed Shaft	30"	140

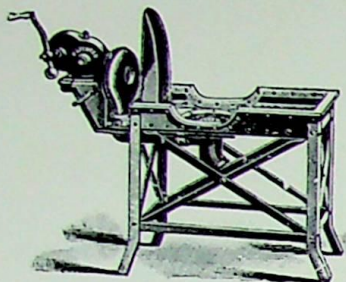
Extra for Half Hood

# THE CHAMPION BLOWER & FORGE CO.

## LANCASTER, PA., U. S. A.

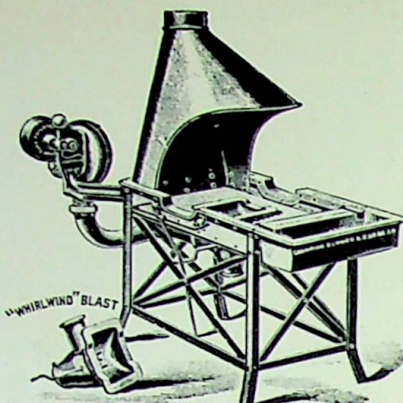


# FAMOUS "Champion" TOOLS



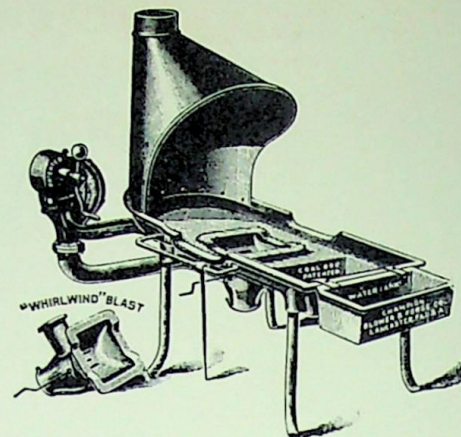
No. 404 Forge

No. 404 and No. 406 Champion Steel Forges have square hearth, with angle steel legs. Have the 400 Blower. Hearth of the No. 404 is 24 inches square and of the No. 406 is 30 inches square. Are practical forges for government use, bridges and tank-builders, and boiler work. The blower can be taken off for transportation. Crank turns either way.



No. 408 Forge

No. 408 Champion Steel Blacksmiths' Forge is built with heavy steel plate and structural steel with perpendicular sides 6 inches deep; braced and constructed in a substantial manner. The Blower mechanism represents the Famous 400 Blower Driven by High-Speed Spiral Gearing, guaranteed to produce a white heat blast. Crank turns either way. Water Tank extra.



No. 433 Forge

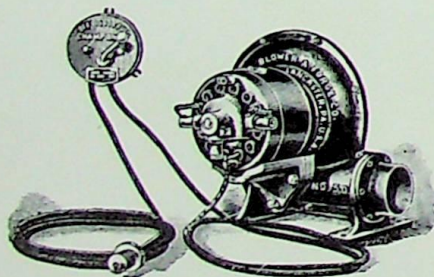
No. 433 Champion Cast Iron Hearth Forge is the 400 Blower with deep, heavy cast iron hearth. Capacity of this Forge is sufficient for any railroad shop or blacksmith work. Sloped bottom coal box, which is entirely out of the way.

No. 433 Champion Cast Iron Hearth Blacksmith Forge, Hearth 32x45 inches, Fan 12 inches in Diameter, with No. 400 Champion Whirlwind Blast Anti-Clinker Heavy Nest Tuyere Iron. Weight 400 lbs. Water Tank, extra.

Forge No.	Hearth	Bearings	Fan	Height	Type Tuyere	Weight
404	24 x 24 x 6"	Full Ball Bearing	Wind Shield	9"	Grate	160
406 1/2	24 x 30 x 6"	Full Ball Bearing	Wind Shield	12"	400 Anti Clinker	265
406	30 x 30 x 6"	Full Ball Bearing	Wind Shield	12"	400 Anti Clinker	270
408	30 x 36 x 6"	Full Ball Bearing	Half Hood	12"	400 Anti Clinker	310
409	30 x 40 x 6"	Full Ball Bearing	Half Hood	12"	400 Anti Clinker	325
79	24 x 24 x 6"	Ball Bearing High Speed Shaft	Wind Shield	12"	Grate	170
79 1/2	30 x 30 x 6"	Ball Bearing High Speed Shaft	Wind Shield	12"	400B Heavy Ball	210
79 1/2 A	24 x 30 x 6"	Ball Bearing High Speed Shaft	Wind Shield	12"	400B Heavy Ball	200
80	24 x 36 x 6"	Ball Bearing High Speed Shaft	Half Hood	12"	400B Heavy Ball	305
80 1/2	30 x 40 x 6"	Ball Bearing High Speed Shaft	Half Hood	12"	400B Heavy Ball	315
80 A	24 x 30 x 6"	Ball Bearing High Speed Shaft	Half Hood	12"	400B Heavy Ball	290
48 1/2	24 x 24 x 6"	Ball Bearing High Speed Shaft	Wind Shield	12"	Grate	170
44 1/2	30 x 30 x 6"	Ball Bearing High Speed Shaft	Wind Shield	12"	400B Heavy Ball	275
44 1/2 A	24 x 30 x 6"	Ball Bearing High Speed Shaft	Wind Shield	12"	400B Heavy Ball	265
47 1/2	30 x 36 x 6"	Ball Bearing High Speed Shaft	Half Hood	12"	400B Heavy Ball	300
47 1/4	30 x 40 x 6"	Ball Bearing High Speed Shaft	Half Hood	12"	400B Heavy Ball	315
44 3/4	30 x 30 x 6"	Ball Bearing High Speed Shaft	Half Hood	12"	400B Heavy Ball	285
48 3/4	24 x 24 x 6"	Ball Bearing High Speed Shaft	Half Hood	12"	Grate	185
44 3/4 A	24 x 30 x 6"	Ball Bearing High Speed Shaft	Half Hood	12"	400B Heavy Ball	275

Extra for Water Tank if desired.

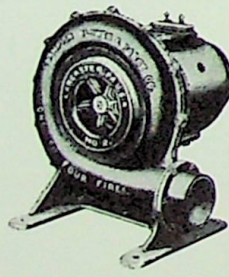
## Champion Direct Connected Electric Blowers



No. 50 For One Fire

No. 50 Champion One-Fire Variable Speed Electric Blower with Universal Motor for both Direct and Alternating Current, either 110 or 220 volts, with Detached Rheostat for six speeds, attachment cord and plug for general Blacksmith work. Weight 60 lbs.

No. 51 Champion One-Fire Variable Speed Electric Blower with Universal Motor for both Direct and Alternating Current, either 110 or 220 volts, with Detached Rheostat for six speeds, attachment cord and plug, only half size larger for all kinds of Extra Heavy Blacksmith work. Weight 70 lbs.

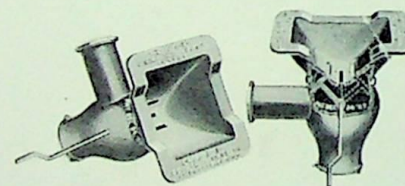


No. 2 For Four Fires

No. 20 Direct Connected Constant Speed Electric Blower, 15 inches in Height, Diameter of Outlet 3 1/4 inches, suitable for one to two fires, either direct or alternating current, 110 or 220 volts. Weight 65 lbs.

No. 2 Champion Direct Connected Constant Speed Electric Blower, 15 inches in Height, Inside Diameter of Outlet 3 1/4 inches. Suitable for One to Four Fires, or for any other purpose requiring not over 200 cu. ft. of air per minute, and 2 1/4 oz. pressure, either Alternating Current or Direct Current, 110 or 220 volts. Weight 95 lbs.

No. 3 Direct Connected Constant Speed Electric Blower, 20 inches in Height, Diameter of Outlet 4 1/4 inches. Suitable for One to Six Fires, or for any other purpose requiring not over 300 cu. ft. of air per minute, and 3 oz. pressure, either Direct or Alternating Current, 110 or 220 Volts. Weight 185 lbs.



No. 400 Champion "Whirlwind" Blast Anti-Clinker Heavy Nest Tuyere Iron

FOR GENERAL BLACKSMITHS

A Tuyere Iron that makes a "Whirlwind" Blast

Registered in U. S. Patent Office

Over a million Whirlwind Blast Anti-Clinker Heavy Nest Tuyere Irons sold to users.

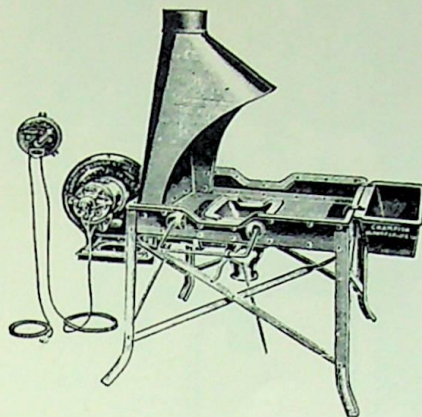
The Whirlwind Blast Anti-Clinker Heavy Nest Tuyere Iron produces a circular, rotary blast; will not blow the heat or hot air up and out of the chimney; less blast is wasted 6 inches above the tuyere than 4 feet above any other tuyere iron; concentrates the blast and heat in the tuyere nest, thus makes a hotter fire and heats the iron one-third quicker.

Saves at least one-half the heating elements. Is supplied with a revolving pick to pick the clinkers out of the side slots.

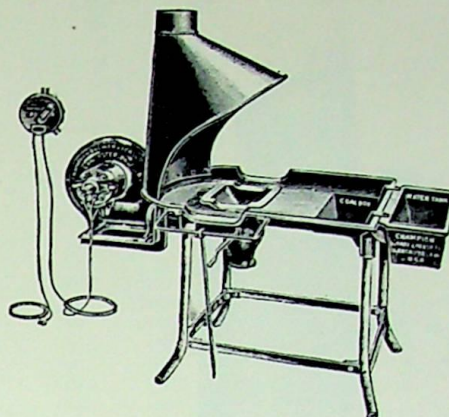
No. 400 Champion Whirlwind Blast Anti-Clinker Heavy Nest Tuyere Iron is 5 inches deep, 8 1/4 inches wide and 10 1/4 inches long, over all 12 1/4 x 14 1/4 inches. Weight 55 lbs.



## CHAMPION ELECTRIC-DRIVEN STEEL AND CAST IRON BLACKSMITH FORGES



No. 440



No. 441

No. 440 Champion Electric-Driven Steel Forge with Whirlwind Blast Anti-Clinker Heavy Nest Tuyere Iron, Hearth 30x36 inches, with Half Hood complete. Weight 285 lbs.

No. 446 Champion Electric-Driven Steel Forge with Whirlwind Blast Tuyere Iron, Hearth 36 inches in Diameter. Weight 300 lbs.

No. 447 Champion Electric-Driven Steel Forge with Whirlwind Blast Tuyere Iron, Hearth 48 inches in Diameter. Weight 400 lbs.

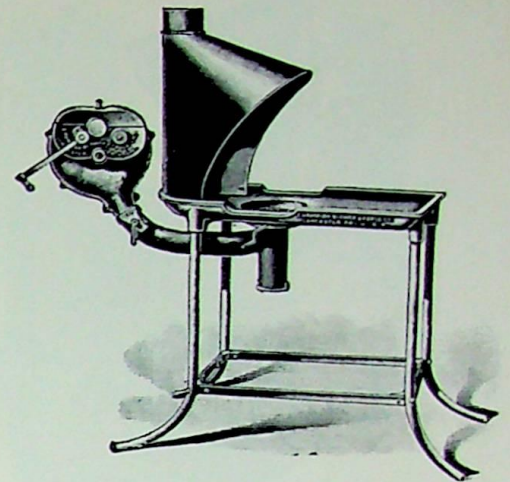
No. 459 Champion Electric-Driven Steel Rivet Forge, Hearth 18 inches in Diameter. Weight 120 lbs.

No. 441 Champion Electric-Driven Cast Iron Forge, with Whirlwind Blast Anti-Clinker Heavy Nest Tuyere Iron, Hearth 32x45 inches, Height 30 inches, with Half Hood complete. Weight 400 lbs.

No. 442 Champion Electric-Driven Cast Iron Forge, with Whirlwind Blast Anti-Clinker Heavy Nest Tuyere Iron, Hearth 38x42x7 inches Deep, Height 26 inches, with Coal Box and Half Hood complete. Weight 510 lbs.

Water Tank Extra.

## CHAMPION LANCASTER Geared Agricultural Forge



No. 43

Champion Lancaster Geared Agricultural Forges are well built, low priced, and direct drive, making good blast-producers, and are recommended for farmers' use. All gears are built to run smooth and noiseless. All gears run in dust-proof cases, and the crank turns either direction to produce the blast.

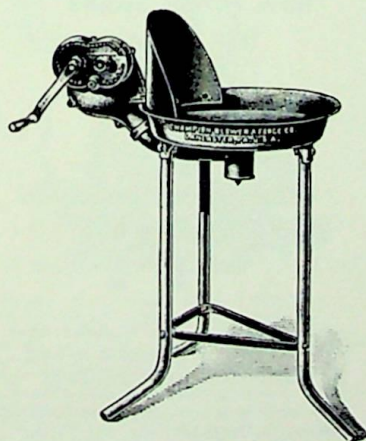
No.	Hearth	Fan	Height	With	Wgt.
41	32" x 45"	12"	30"	Half Hood	385
42	23" x 35"	12"	30"	Shield	200
43	23" x 35"	12"	30"	Half Hood	215
45	22" dia.	10"	30"	Shield	135
46	22" dia.	10"	30"	Half Hood	142

Extra for Water Tank

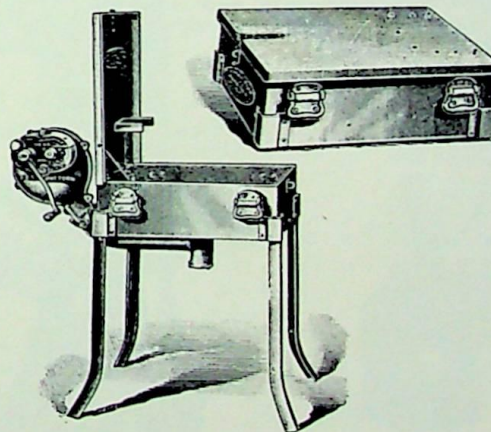
## CHAMPION EUREKA GEARED FORGES

(Gear Ratio 48 to 1)

With Pressed Steel Hearth



No. 145-S Forge

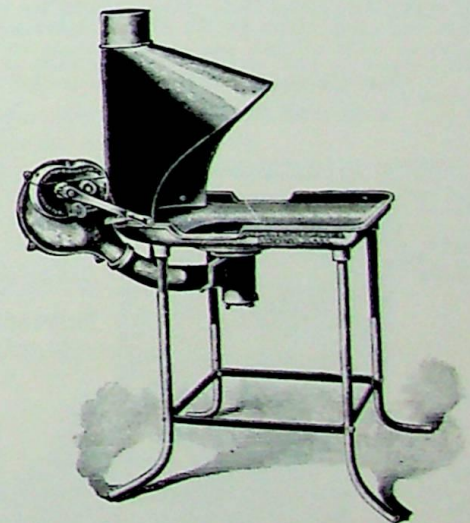


No. 49 Champion Lancaster Geared

Army and Navy Folding Forge, with the legs, tuyere pipe and blower head detachable. When the loose parts are detached and packed in the case, they are firmly held in place, equipped with pressed steel handles to lift the forge about.

No.	Hearth	Fan	Height	Weight
49	18 x 22 x 7"	10"	28"	110 lbs.

With Cast Iron Hearth



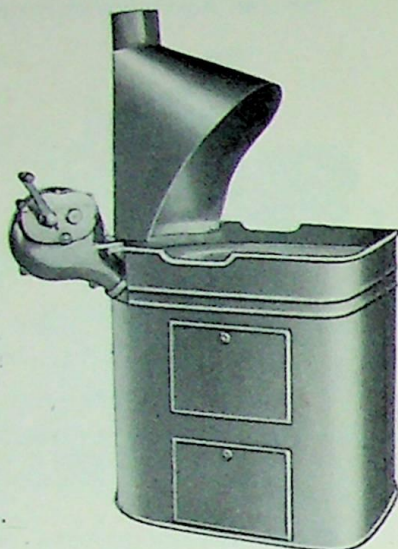
No. 143 Forge

No.	Hearth	Fan	Shield	Height	Weight	No.	Hearth	Fan	Height	With	Weight
145S	18"	8"	Shield	30"	45	142	23" x 30"	10"	30"	Shield	140
146S	18"	8"	Half Hood	30"	50	143	23" x 30"	10"	30"	Half Hood	145
147S	24"	8"	Shield	30"	55	242	20" x 25"	10"	30"	Shield	115
148S	24"	8"	Half Hood	30"	60	243	20" x 25"	10"	30"	Half Hood	120
142S	24 x 35"	12"	Shield	30"	140	104	18" x 20"	8"	30"	Half Hood	90
143S	24 x 35"	12"	Half Hood	30"	145	145	18" dia.	8"	30"	Shield	70
135	15 x 19"	7"	Shield	30"	40	146	18" dia.	8"	30"	Half Hood	75
136	15 x 19"	7"	Half Hood	30"	45	147	22" dia.	8"	30"	Shield	85
135S Bench	15 x 19"	7"	Shield	16 1/4"	40	148	22" dia.	8"	30"	Half Hood	90

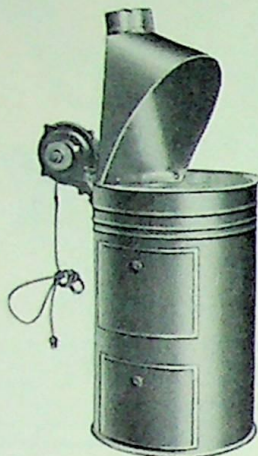


# FAMOUS "Champion" TOOLS

## CHAMPION MODERN PORTABLE FORGES NEAT — COMPACT — STRONG — USEFUL



No. 1143 with Hand Blower



No. 1146SE with Electric Blower

No.	Hearth Size	Depth	Blower	Half-Hood or Shield	Fan	Height	Weight Pounds
1145S Steel	18" Diam.	3"	Hand	Shield	8"	30"	50
1146S Steel	18" Diam.	3"	Hand	Half-Hood	8"	30"	70
1147S Steel	24" Diam.	3"	Hand	Shield	8"	30"	60
1148S Steel	24" Diam.	3"	Hand	Half-Hood	8"	30"	65
1143 Cast Iron	23" x 30"	3"	Hand	Half-Hood	10"	30"	135
1104 Cast Iron	18" x 20"	3"	Hand	Half-Hood	8"	30"	90
1145SE Steel	18" Diam.	3"	Electric	Shield	8"	30"	50
1146SE Steel	18" Diam.	3"	Electric	Half-Hood	8"	30"	55
1147SE Steel	24" Diam.	3"	Electric	Shield	8"	30"	60
1148SE Steel	24" Diam.	3"	Electric	Half-Hood	8"	30"	80
1143E Cast Iron	23" x 30"	3"	Electric	Half-Hood	10"	30"	135
1104E Cast Iron	18" x 20"	3"	Electric	Half-Hood	8"	30"	90

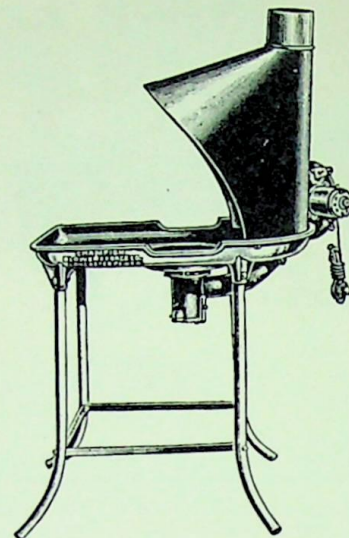
Our neat popular-priced line, especially serviceable for Home Workshops, Schools, Industrial as well as Farm Trade.

The modern streamlined design and general efficiency and compactness of these forges, with the fuel storage space beneath the hearth of the forge is of particular advantage. The upper door in the base receives the fuel, which feeds automatically to the lower storage reservoir; then fuel is removed as required from the lower door. This fuel storage space is compact and keeps the room in which the forge is used, neat and always clean.

Champion Eureka Cut-Gear Hand Blowers will furnish blast to heat iron 3" thick in ten minutes. Cut gears run in oil, in dust-proof, oil-tight gear cases—crank turns either direction.

Champion Electric Blowers have sturdy motor, without radio interference. Blast regulated by damper on intake side. Toggle switch for starting and stopping on fan case—attachment cord and plug. Motor for 110 volts, 60 cycles, single phase, only.

## CHAMPION ELECTRIC STEEL FORGES FOR HOMECRAFT SERVICE AND GENERAL REPAIR WORK



No. 4143-S

Sturdy Motor, without radio interference.

Blast regulated by damper on intake.

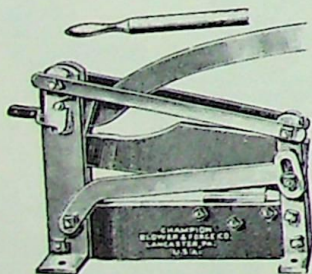
Toggle Switch for starting and stopping, on fan case.

Ten feet of Cord, and attachment plug, furnished.

Motor for 110 volts, 60 cycles, single phase, only.

No.	Hearth	Size	Half Hood or Shield	Fan	Ht.	Wt.
4142S	Steel	23 x 35"	Shield	10"	30	140
4143S	Steel	23 x 35"	Half Hood	10"	30	145
4147S	Steel	24"	Shield	8"	30	55
4148S	Steel	24"	Half Hood	8"	30	60
4145S	Steel	18"	Shield	8"	30	45
4146S	Steel	18"	Half Hood	8"	30	50
4135S	Steel Bench	15 x 19"	Shield	7"	16½	40
4136S	Steel Bench	15 x 19"	Half Hood	7"	16½	45

### The Champion Wrought Iron and Steel Shear

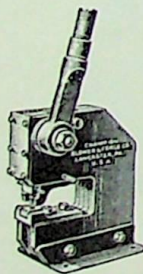


The Champion Shear is made of steel throughout, there being not a single piece of cast iron or malleable casting used in its entire construction.

No. 1 Champion Shear, has 6-inch Knives, 3/4 inch Thick, will cut 4-inch by 1/2-inch Flat Iron and 1-inch Round or Square Iron. Weight 250 lbs.

No. 2 Champion Shear, has 12-inch Knives, 1/2 inch Thick, will cut 4-inch by 1/2-inch Flat Iron and 1-inch Round or Square Iron, also will cut Plow Steel from 6 to 10 inches wide. Weight 250 lbs.

### The Champion Steel Punch



The Champion Steel Punches are built entirely of steel. On account of the breakage-proof, compact and rigid construction this all-steel punch is far superior to the cast iron machines on the market.

No. 1 Champion Steel Punch, Capacity 1/4-inch Hole in 1/4-inch Material, Throat 2 1/4 inches. Weight 30 lbs.

No. 2 Champion Steel Punch, Capacity 3/8-inch Hole in 3/4-inch Material, Throat 6 1/2 inches. Weight 190 lbs.

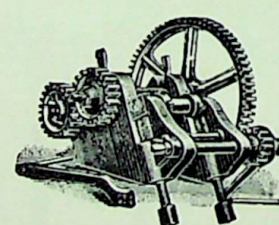
### No. 4 American Tire and Axle Shrinker



No. 4 The Champion American Tire and Axle Shrinker will Shrink up to 4 x 1-inch Round-Edge Tire and Axles up to 1 1/4 inches, with Two Steel Jaws 4 x 2 inches Wide. Weight 375 lbs.

Will shrink without kinking with one stroke of the lever 1 1/4 inches, and stand pounding. Jaws are made of hammered tool steel with machine-cut teeth hardened to suit the work to be done. Jaws are worked by a mechanical lever and thrown in and out instantly by a simple movement of the hand.

### New Patent Eureka Tire Bender



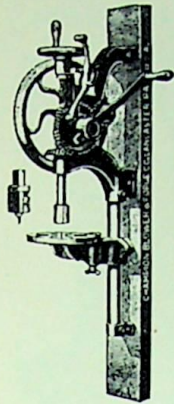
The Champion New Patent Eureka Tire Bender has adjusting screws at each end of the adjusting roll with a graduated indicator. The two end rolls are provided with collars to prevent the tire from twisting, so both ends meet when bent. It is double back-gear, and worked with two cranks; also two speeds, one for light and fast work, and the second for heavy work.

No. 1 New Style Eureka Bender, Bends 4 x 1-inch Tire. Weight 190 lbs.

No. 2 New Style Eureka Bender, Bends 6 x 1-inch Tire. Weight 295 lbs.

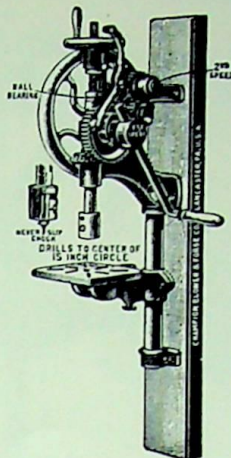


## Self-Feed



No. 101

## Three-Geared



No. 95

## CHAMPION BALL BEARING POST DRILLS

No.	Capacity	Speeds	Swing
103	3/4"	1	12"
101	1"	1	12"
98	1 1/4"	1	14"
90	1 1/4"	2	14 1/2"
93 1/2	1 1/4"	2	15"
95	1 1/4"	2	16"
96	1 1/2"	2	15 1/2"
97	1 1/4"	2	17"
4	1 1/2"	2	18"

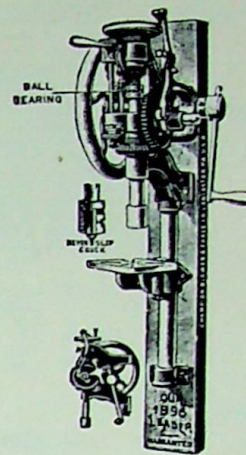
  

Height	Dia. Spindle	Travel Spindle	Weight
31"	7/8"	3"	60
35"	7/8"	3"	75
40"	1"	3"	95
43"	1 1/8"	3"	100
46"	1 1/8"	3"	110
46"	1 1/8"	3"	110
46"	1 1/8"	3"	125
50"	1 1/4"	5 1/2"	165
54"	1 1/4"	5"	200

All take 1/2" Shank Bits

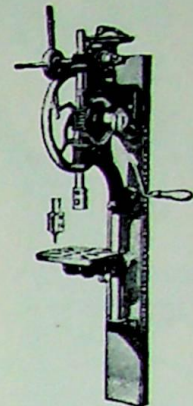
Extra for Tight and Loose Pulleys

## Self-Feed and Quick Return



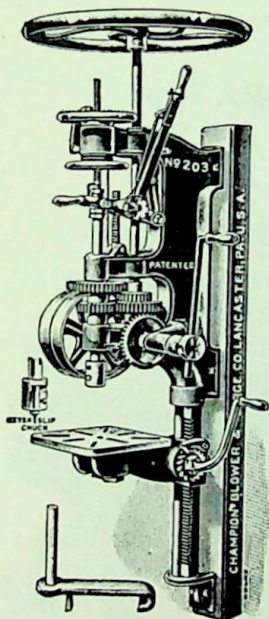
No. 96

## Hand-Feed and Quick Return



No. 97

## Self-Feed Double Compound Ball Bearing



No. 203-P Post Drill

Double Compound Lever-Feed produces 80 per cent more pressure, or drills holes 80 per cent larger with the same labor than any other lever-feed drill manufactured.

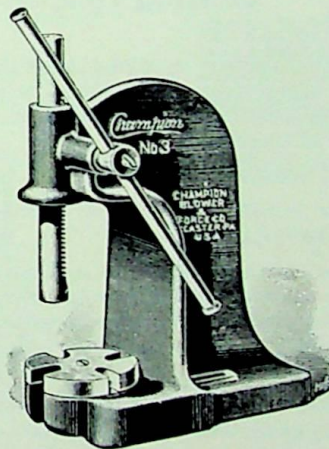
The Champion Self-Feed and Double Compound Lever-Feed invention has revolutionized power metal drilling machinery to the extent that you can drill holes as cheaply as the largest machine shop plants.

No. 203CP Champion Self-Feed and Double Compound Lever-Feed Cut-Geared Post Drill, Drills to Center of 21-inch Circle, Spindle Bored to take 41/64-inch Straight Shank Drill Bits, with Cone Pulley and Countershaft for Hand and Power. Weight 545 lbs.

No. 203P Drill with Tight and Loose Pulleys for Hand and Power. Weight 465 lbs.

No. 203 Drill for Hand only. Weight 435 lbs.

## CHAMPION ARBOR PRESS No. 3



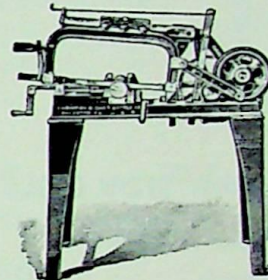
Popular size, for use in factories, machine shops, and garages, designed to mount on bench or lathe bed.

The frame is cast iron; the ram and pinion of steel, heat-treated; the hand lever is adjustable for large and small work.

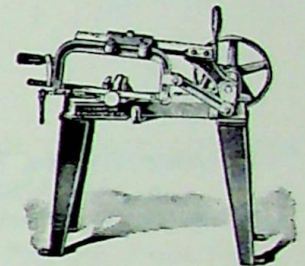
Diameter of work.....12 inches  
Largest Mandrel.....1 1/4 inches  
Size of Table.....7 inches  
Greatest Distance from Table to Ram.....11 inches  
Size of Ram.....1 3/4 inches x 17 inches  
Floor Space.....8 3/4 inches x 19 inches  
Height.....23 inches  
Leverage.....45 to 1

Weight, 160 lbs. Code—Prant.

## THE CHAMPION IMPROVED POWER HACK SAW MACHINES



No. 2 Capacity 6x6 inches



No. 1 Capacity 4x4 inches

The Champion No. 2 Power Hack Saw Machine has the following features: swivel vise cutting to an angle of 45 degrees. Gravity feed—reducing the breaking or buckling of saw blades to a minimum. An automatic shut-off which instantly stops the machine when the sawing of material is completed. Positive clutch—simply constructed—preventing complicated parts to get out of order. Driven by accurately cut gears, positive drive with less power.

An attachment to automatically lift the saw blade on return stroke and gradually replace the blade in contact with the work on cutting stroke.

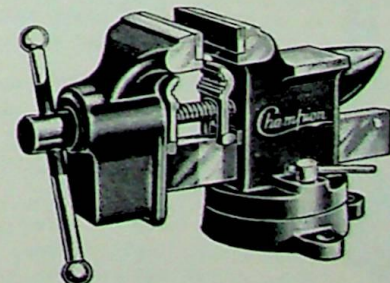
Length of Blades 10"-12" or 14" Geared 3 to 1  
Stroke of Blade 6" Speed of Pulley 120 to 180 R.P.M.  
Driving Pulley 9" diam. x 2 1/4" face Weight 245 lbs.  
Floor Space 34" x 17"

Vise Jaws 3 1/4" high x 5 1/4" wide x 6" opening

The Champion No. 1 Hack Saw Machine is a rugged low-priced Hack Saw, for light work in machine shops and garages. Will cut fast and straight. Positive clutch, simply constructed, preventing complicated parts getting out of order and automatic shut-off which instantly stops machine when sawing of the material is completed.

Length of Blades 8"-10" Vise Jaws 2 1/4" high x 3 1/4" wide x 4 1/4" opening  
Stroke of Blade 4" Speed of Pulley 380 to 400 R.P.M.  
Drive Pulley 9" diam. x 2 1/4" face Weight 110 lbs.  
Floor Space required 24" x 10"

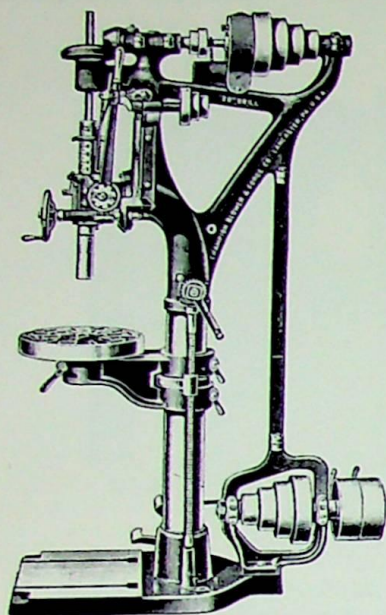
## CHAMPION SWIVEL BASE VISES With Removable Pipe Jaws



No.	Width of Jaw	Jaw Opens	Weight
3	Radio and Home Vise	3 inches	3 inches 15 lbs.
3 1/2	Radio and Home Vise	3 1/2 inches	3 1/2 inches 20 lbs.
4	Home and Garage Vise	4 inches	4 inches 28 lbs.
5	Garage and Shop Vise	5 inches	5 inches 50 lbs.
6	Garage and Shop Vise	6 inches	6 inches 90 lbs.



## CHAMPION 21-INCH BACK GEARED POWER DRILL



21 Inch

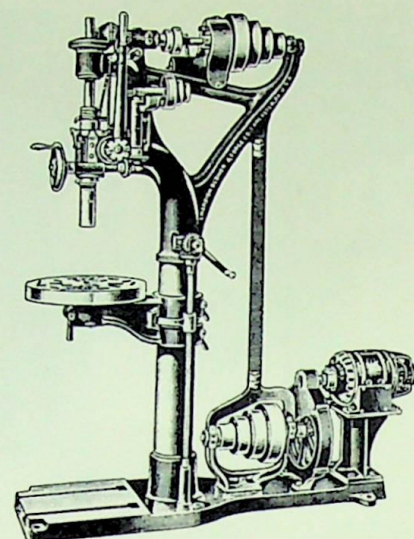
Back Geared, Power Feed and Automatic Stop.  
Swings to center of 21" circle.  
Height of Drill 77".  
Column diameter 5 1/4".  
Table diameter 16".  
Vertical travel on column 21".  
Spindle diameter in sleeve 1 1/8".  
Spindle travel 12".  
Distance between table and spindle 27 3/4".  
Distance between spindle and base 43".  
Distance from column to center of spindle 10 3/4".  
Power Feeds per revolution of spindle for various cone steps on power feed .002, .005, .008.  
Size of tight and loose pulleys 8 x 2 1/4".  
Size of cone pulleys (4 step) 4, 5 1/4, 7 1/2, 9 x 2 in. face.  
Speed of driving pulley 300 R.P.M.  
Hole in spindle bored to fit No. 4 Morse Taper.  
Base has T slots.  
Capacity—drills 0 to 1 1/4".  
Floor space 16" x 45".

No.	Capacity	Speed	Swing	Dia. Table	No. Taper	Height	Weight
21"	1 1/4"	8	21"	16"	4 Morse	77"	950 lbs.
21" Electric	1 1/4"	8	21"	16"	4 Morse	77"	1150 lbs.
24"	1 1/2"	8	24"	18"	4 Morse	76"	1025 lbs.
24" Electric	1 1/2"	8	24"	18"	4 Morse	76"	1200 lbs.

## CHAMPION DRILLING VISE



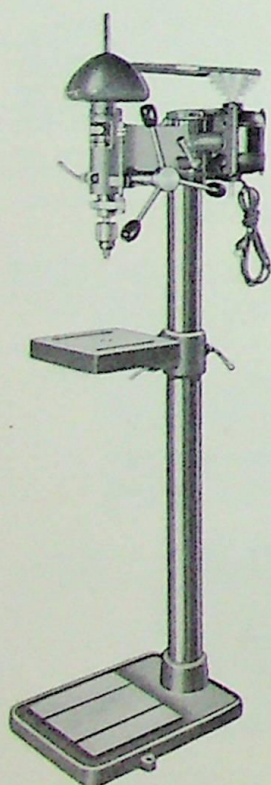
With 5-inch Jaw opening 6 inches. Weight 30 pounds.



21-Inch Electrically Gear Driven

## CHAMPION No. 1600 PRODUCTION DRILL

with Geared Adjustable Chuck 1/2" Capacity  
Ball-Bearing Throughout—For Metal or Wood Work



A real production 5-speed V-belt drive drill, for high speed drilling metal up to 1/2" or wood up to 2".

Oil groove base permits the use of oil pump for production work as all oil drains back into 1 1/2" oil groove.

Height of drill 68", with 2 3/4" diameter column. Drill head rests on collar permitting head to be swung around like a radial drill, where it can be locked at any position without falling down. Greatest distance between chuck and table 40"; spindle has automatic stop, which can be set for any depth drilling; graduated in 1/8ths.

Table is 10 x 10" and can be tilted to any angle up to 45°. Motor 110 v., 1/3 H. P., 60 cycle, single phase, with cord and plug.

Base is 15 x 18" overall; machined surface is 10 x 10". Speeds 450-950-1600-2800-5100 R. P. M.

No.	Type	Capacity	Five Speed	Swing	Height	Weight
1600	Floor	1/2"	450 to 5100 RPM	16"	68"	225 lbs.
1600B	Bench	1/2"	450 to 5100 RPM	16"	40"	180 lbs.
1500	Floor	1/4"	450 to 5100 RPM	16"	68"	200 lbs.
1500B	Bench	1/4"	450 to 5100 RPM	16"	40"	175 lbs.

## CHAMPION No. 1500B BENCH DRILL

With Geared Adjustable Chuck 1/2" Capacity  
Ball-Bearing Throughout—For Metal or Wood Work

CHAMPION No. 1500B BENCH DRILL is a substantial machine which sets firm on a base 16" x 11", with column 2 3/4" in diameter.

The spindle is full ball-bearing.

The Spindle pulley runs on its own ball bearings.

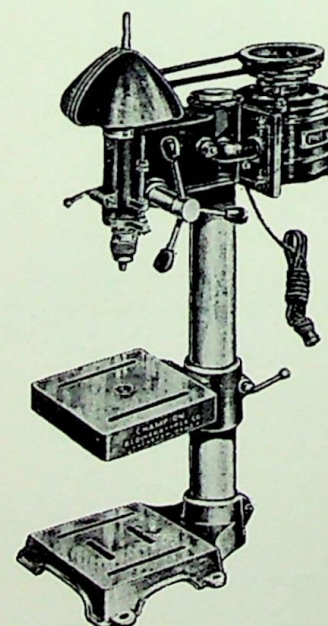
The Spindle is graduated, equipped with an automatic stop; when once set for the depth of hole insures all remaining holes to be of the same depth.

Table is 10" x 10", and can be tilted to any angle, and locked, and levelled in any position, which makes it very convenient for drilling odd or complicated work. Table and Base are slotted for bolting work on.

Greatest distance from chuck to base is 16".

Motor is 1/3 H.P., 110 V., 60 cycle, A.C. type, 1750 R.P.M., with attachment cord and plug.

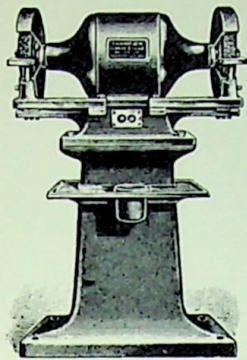
## CHAMPION No. 1500B BENCH DRILL





# FAMOUS "Champion" TOOLS

## CHAMPION HEAVY DUTY ELECTRIC-DRIVEN FLOOR GRINDER



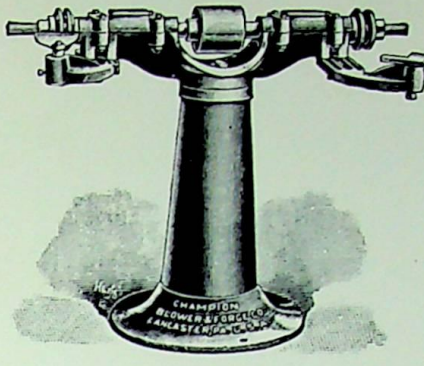
No. 610. Capacity 8 x 3/4" Wheels, with 7/8-inch Hole. 380 lbs.

No. 611. Capacity 10 x 1-inch Wheels, with 1-inch Hole. Weight 420 lbs.

No. 612. Capacity 12 x 1 1/2-inch Wheels, with 1-inch Hole. Weight 635 lbs.

No. 613. Capacity 14 x 2-inch Wheels, with 1 1/4-inch Hole. Weight 700 lbs.

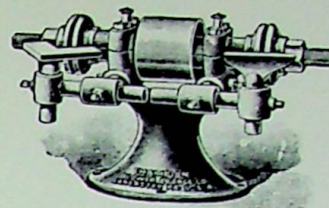
## CHAMPION COLUMN GRINDER WITH RING OIL BEARINGS



No. 1

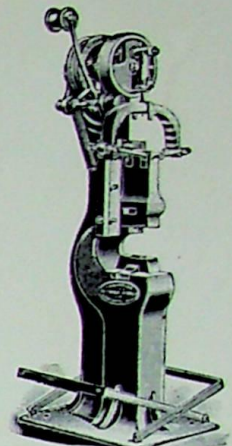
No.	Capacity	Hole in Wheel	Pulley	Length Arbor	Weight
1	16 x 3"	1 1/4"	4 3/4" x 4 1/4"	40"	255
20	18 x 3"	1 1/2"	5" x 6" x 4 1/4"	36"	550
11	12 x 2 1/2"	1"	3 3/4" x 3"	25"	165
10	10 x 2"	1"	3 3/4" x 3"	32"	145
No.	Capacity	Hole in Wheel	Pulley	Length Arbor	Weight
2	16" x 2"	1 1/4"	4 1/2" x 4 1/4"	25"	100
0	12" x 2"	1"	4" x 3"	18"	50
3	10" x 1 1/2"	3/4"	3" x 2"	15"	30
4	6" x 1"	3/8"	2" x 1 1/4"	12"	12

## CHAMPION BENCH GRINDER WITH RING OIL BEARINGS



No. 2

## HERCULES POWER HAMMER



With Flexibility in Stroke of a Hammer in a Mechanic's Hand Made in Three Sizes Either Belt or Electric Drive

No.	Wt. Belt Drive	Wt. Motor Drive	Capacity sq. or rnd.
0	1170	1 HP 1375 lbs.	2"
1	1355	2 HP 1620 lbs.	2 1/2"
2	4500	5 HP 5000 lbs.	3"

## CHAMPION "EASY" COMBINATION SCREW PLATE

With Both U. S. Standard and S. A. E. Standard Taps and Dies

Nos. 12, 15, 15 1/2, 17 and 19 "Easy" Sets are furnished with Two Stocks. Every Set is furnished with an Adjustable Tap Wrench. All our Taps are Machine-Relieved.



No. 11, Plate Complete in Box. Length of Stock 15 1/2 inches. With U. S. Standard Threads, 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, and S. A. E. Standard Threads 1/4, 5/16, 3/8, 7/16, 1/2, 5/8.

No. 12, Plate Complete in Box. Has two Stocks, one 15 1/2 inches long for the first two sizes, one 23 inches long for the larger sizes. With U. S. Std. Threads 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, and S. A. E. Std. Threads 1/4, 5/16, 3/8, 7/16, 1/2, 5/8.

No. 15, Plate Complete in Box. Has two Stocks, one 15 1/2 inches long for the first four sizes, one 23 inches long for the larger sizes. With U. S. Std. Threads 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, and S. A. E. Std. Threads 1/4, 5/16, 3/8, 7/16, 1/2, 5/8.

No. 15 1/2, Plate Complete in Box. Has two Stocks, one 15 1/2 inches long for the first four sizes, one 26 inches long for the larger sizes. With U. S. Std. Threads 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, and S. A. E. Std. Threads 1/4, 5/16, 3/8, 7/16, 1/2, 5/8.

No. 17, Plate Complete in Box. Has two Stocks, one 15 1/2 inches long for the first four sizes, one 26 inches long for the larger sizes. With U. S. Std. Threads 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, and S. A. E. Std. Threads 1/4, 5/16, 3/8, 7/16, 1/2, 5/8.

No. 19, Plate Complete in Box. Has two Stocks, one 15 1/2 inches long for the first four sizes, one 26 inches long for the larger sizes. With U. S. Std. Threads 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, and S. A. E. Std. Threads 1/4, 5/16, 3/8, 7/16, 1/2, 5/8.

## THE CHAMPION "EASY" SCREW PLATE



Nos. 2b, 5b, 5 1/2b, 7b and 9b "Easy" Sets are furnished with Two Stocks. Every Set is furnished with an Adjustable Tap Wrench. All our Taps are Machine-Relieved.

No. 1B, Plate Complete in Box. Length of Stock, 15 1/2 inches. Cutting 1/4, 5/16, 3/8, 7/16, 1/2, 5/8. Weight 9 lbs.

No. 1 1/2B, Plate Complete in Box. Length of Stock, 15 1/2 inches. Cutting 1/4, 5/16, 3/8, 7/16, 1/2, 5/8. Weight 9 lbs.

No. 2B, Plate Complete in Box. Two Stocks, 15 1/2 and 23 inches. Cutting 1/4, 5/16, 3/8, 7/16, 1/2, 5/8. Weight 14 lbs.

No. 5B, Plate Complete in Box. Two Stocks, 15 1/2 and 23 inches. Cutting 1/4, 5/16, 3/8, 7/16, 1/2, 5/8. Weight 16 lbs.

No. 5 1/2B, Plate Complete in Box. Two Stocks, 15 1/2 and 23 inches. Cutting 1/4, 5/16, 3/8, 7/16, 1/2, 5/8. Weight 16 lbs.

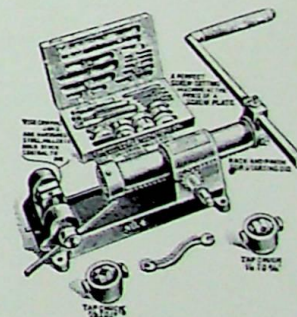
No. 7B, Plate Complete in Box. Two Stocks, 15 1/2 and 26 inches. Cutting 1/4, 5/16, 3/8, 7/16, 1/2, 5/8. Weight 20 lbs.

No. 9B, Plate Complete in Box. Two Stocks, 15 1/2 and 23 inches. Cutting 1/4, 5/16, 3/8, 7/16, 1/2, 5/8. Weight 22 lbs.

We send all Screw Plates U. S. Std. Thread. Can supply Screw Plates with S. A. E. Thread, when ordered.

## THE CHAMPION THREAD-CUTTING MACHINE

Furnished with Dies only, or with Dies, Taps and Tap Chucks



U. S. Std. Thread

No. 1 Champion Thread-Cutting Machine with Dies only. Cutting 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, and 3/4 inch. Weight 60 lbs.

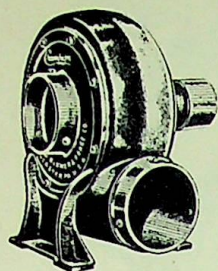
No. 2 Champion Thread-Cutting Machine with Dies only. Cutting 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4 and 1 inch. Weight 65 lbs.

No. 3 Champion Thread-Cutting Machine with Dies, Taps and Tap Chuck, Complete, Cutting 1/4, 5/16, 3/8, 7/16, 1/2, 5/8 and 3/4 inch. Weight 70 lbs.

No. 4 Champion Thread-Cutting Machine with Dies, Taps and Two Tap Chucks, Complete, Cutting 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4 and 1 inch. Weight 75 lbs.



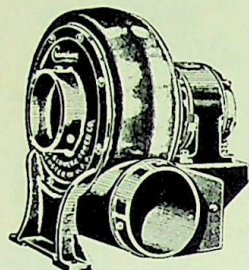
## CHAMPION BALL BEARING UNIVERSAL FANS



Type B

No. of Fan	Weight Pounds	Height in inches	Outside Diameter of Inlet	Outside Diameter of Outlet	Diameter of Pulley	Face of Pulley
1B	70	14 1/4	5	5	3	2 1/2
2B	120	16 1/2	6	6	4	3
3B	170	20 1/4	7	7	4	3
4B	225	24 1/2	8	8	5 1/4	3 1/2
5B	350	27 1/2	9	9	5 1/4	3 1/2
6B	400	31	10	10	5 1/4	3 1/2
7B	500	37	12	12	7 1/2	6 1/2
8B	880	48	16	16	7 1/2	6 1/2

## CHAMPION TYPE BE ELECTRIC DRIVEN FANS

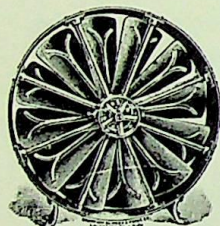


Type BE

Type BE Fans can be used as Exhaust Fans or Volume Blowers. With adjustable discharge—can be furnished arranged for Motor less Motor if desired.

No.	RPM	HP	CFM F" S.P.	CFM 5" S.P.
1-BE	1750	1/4	150	0
1-BE	3450	1/2	661	276
2-BE	1750	1/2	390	0
2-BE	3450	2	1150	750
3-BE	1140	1 1/2	500	0
3-BE	1750	1 1/2	810	0
3-BE	3450	5	1860	1500
4-BE	1140	1 1/2	775	0
4-BE	1750	1	1150	300
4-BE	3450	7 1/2	2400	2000
5-BE	870	1 1/2	650	0
5-BE	1140	3/4	1000	200
5-BE	1750	2	2600	1400
6-BE	870	3/4	1350	0
6-BE	1140	1	2000	550
6-BE	1750	5	3250	1900
7-BE	870	2	1490	0
7-BE	1140	5	2100	690
7-BE	1750	10	3175	2775
8-BE	490	2	1200	0
8-BE	870	5	2450	0
8-BE	1140	7 1/2	3690	2000

## CHAMPION VENTILATING AND MINE FAN



Champion Ventilating and Mine Fan is first-class in all its parts. Its blades are made of special rolled steel and mechanically fit into a grooved hub where they are securely fastened. The bearings are Ring Oiling, but can be furnished with Ball Bearings. The shaft is made from hammered steel extra length, so pulley can be placed on either side and thus prevent cross belts. The wheel runs entirely noiseless.

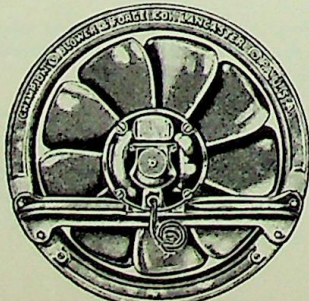
Diam. of Wheel, Inch	Weight	Diam. of Pulley	Face of Pulley	Diam. of Wheel, Inch	Weight	Diam. of Pulley	Face of Pulley
18	90	4	2	48	405	9	4
24	115	4	2	54	425	9	4
30	160	6	2	60	520	10	5
36	180	6	2	72	650	12	5 1/2
42	350	8	3 1/2	84	750	14	6

## CHAMPION ELECTRIC SUPER VENTILATING FANS

Are of the most compact and up-to-date construction possible, and are especially adapted for removing offensive odors and supplying a sufficient quantity of fresh air.

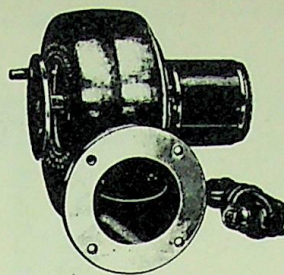
The motor is attached to the frame of the fan by a bracket and is furnished complete and ready to be installed in an opening in the wall or in the window.

The Champion Electric Ventilating Fans are made in five sizes.



Size	Horse Power	Cubic Feet Air per Minute	Approx. Weight Com. plate	Speed R.P.M.
12 in.	1/30	1,000	50 lbs.	1,150
18 in.	1/10	1,800	90 lbs.	850
18 in.	1/6	2,400	90 lbs.	1,150
24 in.	1/4	3,200	160 lbs.	670
24 in.	1/3	4,000	160 lbs.	850
30 in.	1/2	6,200	275 lbs.	675
36 in.	3/4	10,000	350 lbs.	575

## FORCED DRAFT COAL BLOWERS No. 30-31



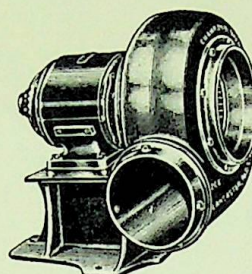
FORCED DRAFT in homes, apartments, churches, schools, hotels, hospitals—will save 40%.

to 50% in fuel costs. Generally heating equipment does not consume all the heat in coal—with Champion Forced Draft Blower 25% less fuel is used, as the proper amount of air, i. e., 170 cubic feet of air to each pound of coal, is supplied by the Blower to use all the heating elements in the coal; and using Buckwheat coal about 50% is saved in the first cost of coal. In operation, without radio interference.

Regularly furnished to attach to ashpit door or side wall of furnace or boiler, can be supplied with base for floor mounting, if specially ordered, at no extra cost.

No. Blower	R.P.M.	H.P.	Sq. Ft. Grate Area	Cu. Ft. Free Air Per Min.	Outlet Height	Weight Lbs.
30	3000	1/40	Up to 4	45	1 1/2"	20
31	1750	1/20	4 to 6	115	3 1/2"	45

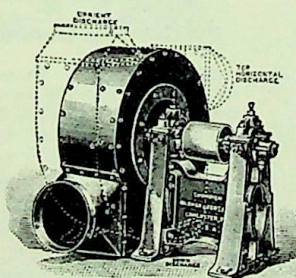
## CHAMPION TYPE CE FORWARD CURVE ELECTRIC DRIVEN FANS



Fan No.	R.P.M.	H.P.	Cu. Ft. per Min.
00-CE	3000	1/60	60
0-CE	1725	1/20	160
1-CE	1140	1/20	370
1-CE	1725	1/4	535
1 1/4-CE	1140	1/6	750
1 1/4-CE	1725	1/3	1100
1 1/2-CE	870	1/6	1025
1 1/2-CE	1140	1/3	1300
1 1/2-CE	1725	1	1900
1 3/4-CE	870	1/4	1600
1 3/4-CE	1140	1/2	2100
2-CE	690	1/2	1900
2-CE	870	1/2	2450
2-CE	1140	1	3300
2 1/2-CE	565	1/2	3100
2 1/2-CE	690	3/4	4000
2 1/2-CE	870	1 1/2	5200
3-CE	565	1 1/2	5400
3-CE	690	3	6800

Type CE Fans are quiet in operation and can be used as Exhaust Fan or Volume Blower furnishing large volume of air at low speed—adjustable discharge—arranged for Motor, less Motor if desired.

## CHAMPION ADJUSTABLE STEEL PLATE PLANING MILL EXHAUST FAN

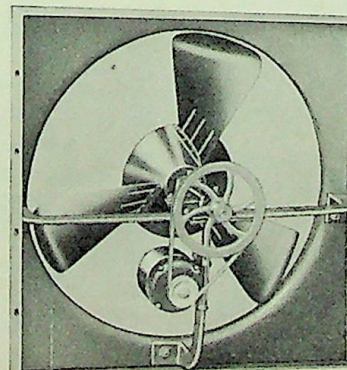


Champion Planing Mill Steel Plate Exhausters are designed for removing shavings, chips, and sawdust from wood-working machinery, and for elevating cotton, cotton seed, hulls, etc., or any other fibrous material of the same nature.

Made with Ring Oil Bearings or Ball-Bearings if so ordered.

Size	Weight Each Pounds	Height of Shell	Inside Diam. of Inlet	Inside Diam. of Outlet	Diam. and Face of Pulley
25 inches	500	26 1/2	11	11	5 x 4 1/2
30 "	565	32 1/2	13	13	6 x 5 1/2
35 "	635	37 1/2	15	15	7 x 6 1/2
40 "	875	42 1/2	17	17	8 x 7 1/2
45 "	1095	48 1/2	19	19	9 x 8 1/2
50 "	1240	53	21	21	10 x 9 1/2
55 "	1500	59	23	23	11 x 10 1/2
60 "	1760	66 1/2	25	25	12 x 11 1/2

## CHAMPION ATTIC FANS



Bring in night air quietly at trifling cost to operate.

You can enjoy cool night air in every room in the house. Average air change necessary, thirty changes an hour, or sixty changes an hour in tropics, for whole house ventilation.

Size	Cap. F.P.M.	H.P. Motor
30"	5000	1/6
36"	7500	1/4
42"	10000	1/3
48"	13000	1/2

Fan Speed	Watt Input	Shpg. Wgt.
490	235	120 lbs.
400	315	140 lbs.
320	350	175 lbs.
270	450	225 lbs.